## VOLUME AND PEAK RATE OF RUNOFF

Landowner:_____

By:_____ Date:_____

Checked:_____ Date:_____

| Land Use | Treatment | Hydrologic Soil Group | | | | | | | | Sum of Product Acres X CN |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A | | B | | C | | D | | |
| | | Acres | CN | Acres | CN | Acres | CN | Acres | CN | |
| Row Crops | Straight Row | | 67 | | 78 | | 85 | | 89 | |
| | Contour | | 65 | | 75 | | 82 | | 86 | |
| | Contour/Terrace | | 62 | | 71 | | 78 | | 81 | |
| Small Grain | -------------------- | | 63 | | 75 | | 83 | | 87 | |
| Hayland | -------------------- | | 58 | | 72 | | 81 | | 85 | |
| Pasture | Poor | | 68 | | 79 | | 86 | | 89 | |
| | Fair | | 49 | | 69 | | 79 | | 84 | |
| | Good | | 39 | | 61 | | 74 | | 80 | |
| Woodland | Poor Cover | | 45 | | 66 | | 77 | | 83 | |
| | Good cover | | 25 | | 55 | | 70 | | 77 | |
| Roads | Includes R.O.W. | | 74 | | 84 | | 90 | | 92 | |
| Farmsteads | -------------------- | | 59 | | 74 | | 82 | | 86 | |
| Other | | | | | | | | | | |

DA = Drainage Area = Total Acres _____          Total Product | |

For curve numbers of other land uses, See EFH pages MO-2-9 and 10

Computed Runoff CN = $\dfrac{\text{Total Product}}{\text{Total Acres}}$ = _____ = _____ ;  Use CN* = _____

Practice_____

Frequency              Years        _____          _____

Rainfall, P            Inches       _____          _____

Runoff, Q              Inches       _____          _____
      (EFH MO-2-11 to 24)

Total Runoff = $\dfrac{(DA \times Q)}{12}$  Ac-ft = _____          _____

Average Watershed Landslope, Y = _____ %        Flow Length, $\ell$ = _____ ft

Time of Concentration

$T_c$ using $\ell$, Y, CN and Figure 2-27, page 2-41 or using equation 2-5, page 2-5 of EFH

$T_c$ = _____ hrs      Initial abstraction,      $I_a$ = _____ in      (Use CN with table 2-4 page 2-89)

Compute $I_a / P$ ratios      _____          _____

Unit peak discharge, $q_u$    _____          _____

(Use $T_c$ and $I_a / P$ with exhibit 2-11, page 2-13 or EFH MO-2-34)

Peak Discharge, $q_p$ , cfs    _____          _____

($q_p = q_u A Q$) where  $q_u$ = unit peak discharge;  A = drainage area; and Q = runoff

* When the job warrants the use of CN other than 65, 70, 75, etc., a straight line interpolation can be made between discharge values for bracketing CN's.